

ABSTRACT OF THE DISCLOSURE

An automatic identification system and method are provided which employ a machine readable multiple layer label. The label has a plurality of machine readable marking layers stacked one upon another. Each of the marking layers encodes an identification symbol detectable using one or more sensing technologies. The various marking layers may comprise the same marking material or each marking layer may comprise a different medium having characteristics detectable by a different sensing technology. These sensing technologies include x-ray, radar, capacitance, thermal, magnetic and ultrasonic. A complete symbol may be encoded within each marking layer or a symbol may be segmented into fragments which are then divided within a single marking layer or encoded across multiple marking layers.